

ABSTRACT

In the present invention, testing is performed by injecting grout (G) into a full-scale specimen comprising a cable that is fabricated at a place other than a construction site. The cable has a sheath made of a transparent material and has the same three-dimensional configuration as that of an internal cable (2') at the construction site. Alternatively, grout (G) is injected into a partial specimen comprising a lengthwise part of the cable where an air trap is likely to occur. The testing is performed under a plurality of different testing conditions. The best grouting conditions are selected from testing results and applied to grouting actually carried out at the construction site.

With the conventional method of grouting an internal cable of a post-tensioned prestressed-concrete structure, it is difficult to check at the construction site whether or not the internal cable is filled with grout without an air trap remaining therein because the cable is laid in concrete and hence the sheath (3') is hidden by the concrete. It is possible according to the present invention to provide a post-tensioned prestressed-concrete structure free from an air trap (V) in the sheath and hence free from the danger of corrosion or breaking of prestressing steel used in the cable.